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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,413	10/05/2005	Gregory A. Hyatt	K-1920PCUS	6513
27877	7590	03/27/2007	EXAMINER	
KENNAMETAL INC.			ROSS, DANA	
P.O. BOX 231			ART UNIT	
1600 TECHNOLOGY WAY			PAPER NUMBER	
LATROBE, PA 15650			3722	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/27/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/526,413	HYATT ET AL.	
	Examiner	Art Unit	
	Dana Ross	3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's arguments as to the restriction requirement were persuasive. All claims will be examined as pertaining the single disclosed embodiment of Applicant's invention.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5,713,253 (Date et al.).

Date discloses a machine tool comprising at least one linear axis (disclosed in the instant invention as any of the X,Y and Z axes). Date also discloses both a rotary axis (Cs) and a rotational axis (Cw), the rotary axis programmable to move to a location in conjunction with a movement of the linear axis (col. 11, lines 10-30, specifically lines 16-22). Date also discloses a tool holder mounted to a tool rest (on the rotary axis Cs) including a cutting tool inherently defining both a lead and trailing angle with respect to the workpiece wherein the angle(s) remain constant as a vector movement of linear axis is changed. Date clearly illustrates this capability in comparing both figures 31 and 33A as well as their respective descriptions in the disclosure of Date (generally between col. 27, line 26 and col. 28, line 21).

Date further discloses rotation of the cutting tool wherein the angle of the lead angle or the trailing angle remains constant by controlling the movement of the rotary axis Cs about an axis that is not the centerline of the workpiece (see fig. 32, for example).

Date further discloses the position of the cutting insert (and therefore the associated angles thereof) can be altered after a roughing pass but before a finishing pass to present a different side of the cutting insert to the workpiece (similar to the instant invention). The various angles associated with cutting are changed during the machining process in embodiments two and three of Date (generally at figures 30-35, but clearest in figures 33A and 33B).

Date also discloses various embodiments with various cutting tools. At least two tools shown (figures 10 and 11) have a nose radius that is substantially concentric with a long axis of the holder.

Date discloses the rake angle of the cutting tool may be modified (changed) during machining, this, inherently, includes placing the rake face perpendicular to the axis of the tool holder (col. 2, lines 26-33).

Date explicitly discloses the use of NC machining (a subset of which is CNC) and since Date explicitly discloses moving at least a portion of the machine tool on the linear axes, it is inherent that the NC is calculating and controlling the machine such that the tool reaches a certain point of the workpiece at a certain point of time.

Date discloses a plurality of retaining configurations through the various embodiments of the invention. Figures 12, 13 and 22 disclose elements that could be referred to as clamps.

Date sets forth the appropriate method steps according to the apparatus set forth above. See col. 27, line 26-col. 28, line 21.

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Date further sets forth the above elements and discloses the cutting element is programmably movable with respect to the workpiece in all three axes.

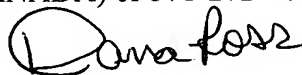
Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dana Ross whose telephone number is 571-272-4480. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica Carter can be reached on 571-272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Dana Ross
Examiner
Art Unit 3722



dmr